DATE: November 26, 2002 **- (Revised 02/18/2003)**
SUBJECT: Changes Made From The November 2001 Screening Value Table

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TO: Users of the Region 6 Screening Value Table and Text

The November 2002 revisions include several changes from the November 2001 version of the Region 6 Human Health Screening Value table and text. These changes are summarized below.

Changes in Toxicity Values, Physical and Chemical Parameters-

Barium and compounds
1,3-Butadiene
Chloral
Cobalt
1,3-Dichlorobenzene
1,1-Dichloroethylene
Kepone
Phenol
Propylene glycol
Propylene glycol, monoethyl ether
1,2,4-Trichlorobenzene
Trichloroethylene (TCE)

Chemicals with RfC in Region 6 Screening Value Table-

Region 6 has changed the equations for inhalation for Category 3 gases. Category 3 gases with toxicity values based upon EPA's 1994 Methods for Derivation of Inhalation Reference Concentrations and Application of Inhalation Dosimetry or with toxicity values that are derived without including body weight and inhalation rate now have screening values that use the RfC instead of the RfDi. In the past, we have converted RfC values into inhalation RfD's by multiplying by 20 cubic meters/day and dividing by 70 kg. For pathways where the equations are based upon adult exposures and weights, there is no difference in the screening value between using RfDi's and RfC's. These pathways include industrial soil values, ambient air values, and tap water values. There can be a difference in the residential soil values if the non-carcinogenic toxicity from inhalation is a driver. Category 3 gases are those gases where the effect is extrarespiratory. The following chemicals are considered to be category 3 gases and the Region 6

table uses the RfC to calculate the screening value:

From IRIS-

Aniline
Arsine
***Carbon disulfide**
1-Chloro-1,1-difluoroethane
Chlorodifluoromethane
Cumene (isopropylbenzene)
1,2-Dibromo-3-chloropropane
1,4-Dichlorobenzene
*** 1,1-Dichloroethylene**
Dichlorvos
1,1-Difluoroethane
2-Ethoxyethanol
Ethylbenzene
Ethyl chloride
Ethylene glycol, monobutyl ether
***Hydrogen cyanide**
Mercury (elemental)
***Methyl ethyl ketone**
Methyl tertbutyl ether (MTBE)
2-Nitropropane
Phosphine
***Naphthalene**
Propylene glycol, monomethyl ether
Styrene
Vinyl bromide
Vinyl chloride

From NCEA-

Benzene
***Bromobenzene**
***Chlorobenzene**
Chloromethane
Methyl mercaptan
Tetrachloroethylene (PCE)
Tetrahydrofuran
***1,1,1-Trichloroethane**

Trichloroethylene

Chemicals with an asterisk(*) have screening levels that are different due to using the RfC instead of the RfDi for the Residential Soil Screening Value. This can be due to the fact that the screening value is based upon the carcinogenic endpoint or that the inhalation pathway is not the risk driver.

Changes in Equations-
The equations for inhalation changed to accommodate the use of the RfC. Additionally, changes were made to the Industrial-Indoor Worker equations with the removal of the transfer coefficient from the soil ingestion equations. The exposure frequency for the Industrial-Outdoor Worker increased to 225 days from 200 days/year.

Sub-Surface Vapor Intrusion Table-
The tables calculating screening levels based upon the Johnson and Ettinger model have been withdrawn from the web site. New national tables are to be available shortly.

Text Revisions-
The text was significantly revised to follow more closely the organization of the spreadsheet. Equations were added to the document to more accurately explain the process of developing the screening levels.

Screening Level Table-
The screening level table now includes the toxicity factors in addition to the screening values.

If you find any errors in the text or in the screening table, please bring it to my attention by sending an email to overstreet.cheryl@epa.gov.

2/18/03- Revision
The November 2002 Screening Value Table was revised to put back the residential lead value of 400 mg/kg for soil as it mysteriously disappeared from the table. The arsenic MCL was also revised to 10 ug/l.